

WHAT IS CLAIMED IS:

1. A method for inhibiting adverse reaction of the contents of a prefilled container during a radiation sterilization procedure comprising:
providing the container made of a radiation stable polyolefin material; and
prefilling the container with a medium prior to subjecting the container to a gamma irradiation sterilization treatment.
2. A method as in claim 1, wherein the medium is selected from the group consisting of a therapeutic fluid and a non-therapeutic fluid.
3. A method as in claim 2, wherein the medium comprises a drug for parenteral administration to the body.
4. A method as in claim 2, wherein the medium comprises saline water.
5. A method as in claim 1, wherein the medium has a pH between about 4.5 and about 7.0 after radiation sterilization.
6. A method as in claim 1, wherein the medium exhibits ultraviolet absorbance of less than about 0.2 at a wavelength between 220 and 340 nm.
7. A method as in claim 1, wherein the medium includes less than about 3.4 ppm of hydrogen peroxide.
8. A method as in claim 1, wherein the container is manufactured from a composition comprising a polyolefin, a mobilizing amount of a liquid mobilizer compatible with said polyolefin, and a radiation stabilizing amount of a hindered piperidine stabilizer.
9. A method as in claim 8, wherein the composition of the container further comprises a clarifying amount of a dibenzylidene sorbitol alkyl thioether clarifier.

10. A method as in claim 8, wherein the composition of the container further comprises a nucleating agent comprising a 2,2'-methylene-bis(4,6-di-t-butylphenol)phosphate salt.

11. A method as in claim 10, wherein the 2,2'-methylene-bis(4,6-di-t-butylphenol)phosphate salt is selected from the group consisting of sodium 2,2'-methylene-bis(4,6-di-t-butylphenol)phosphate and aluminum 2,2'-methylene-bis(4,6-di-t-butylphenol)phosphate.

12. A method as in claim 8, wherein the composition of the container further comprises about 0.1 to 10% of an additional polymer.

13. A method as in claim 8, wherein the polyolefin is selected from the group consisting of polyethylene, polypropylene, polymethylpentene, polytetrafluoroethylene and copolymers thereof.

14. A method as in claim 8, wherein the mobilizing additive is selected from the group consisting of a hydrocarbon oil, phthalic ester oil, polymer grease, vegetable oil, mineral oil and silicone oil.

15. A method as in claim 8, wherein the stabilizer is a bis(4-piperidiny) diester of a dicarboxylic acid.

16. A method as in claim 1, where the gamma irradiation ranges from about 10 kGy to about 60 kGy.

17. A method of sterilizing a prefilled container comprising:
providing a container made of a radiation stable polyolefin material;
filling the container with a medium; and
irradiating said container filled with said medium with gamma radiation.

18. A method as in claim 17, further comprising a step of sealing the container after filling the container with the medium and prior to irradiating the container.

19. A method as in claim 18, further comprising a step of enclosing the container within packaging after sealing the container, and wherein the irradiating step comprises irradiating said container within said packaging.

20. A method as in claim 19, wherein said packaging comprises a blister package.

21. A method as in claim 17, wherein the medium is selected from the group consisting of a therapeutic fluid and a non-therapeutic fluid.

22. A method as in claim 17, wherein the medium comprises a drug for parenteral administration to the body.

23. A method as in claim 17, wherein the medium comprises a saline water.

24. A method as in claim 17, wherein the gamma radiation is in a range from about 10 kGy to about 60 kGy.

25. A method as in claim 17, wherein the container is manufactured from a composition comprising a polyolefin, a mobilizing amount of a liquid mobilizer compatible with said polyolefin, and a radiation stabilizing amount of a hindered piperidine stabilizer.

26. A method as in claim 25, wherein the container further comprises a clarifying amount of a dibenzylidene sorbitol alkyl thioether clarifier.

27. A method as in claim 25, wherein the container further comprises a nucleating agent comprising a 2,2'-methylene-bis(4,6-di-t-butylphenol)phosphate salt.

28. A method as in claim 25, wherein the composition of the container further comprises about 0.1 to 10% of an additional polymer.

29. A method as in claim 25, wherein the polyolefin is selected from the group consisting of polyethylene, polypropylene, polymethylpentene, polytetrafluoroethylene and copolymers thereof.

30. A method as in claim 25, wherein the container comprises a bag for intravenous fluid delivery.

31. A method as in claim 25, wherein the container comprises a syringe.

32. A sterilized article comprising:
a container made of a radiation stable polyolefin material; and
a medium contained within said container,
wherein said container containing said medium therein has been subjected to a gamma irradiation sterilization treatment after being filled with said medium.

33. A sterilized article as in claim 32, wherein the medium is selected from the group consisting of a therapeutic fluid and a non-therapeutic fluid.

34. A sterilized article as in claim 32, wherein the medium contained within the container comprises a drug for parenteral administration to the body.

35. A sterilized article as in claim 32, wherein the medium comprises saline water.

36. A sterilized article as in claim 32, wherein the container comprises a bag for intravenous fluid delivery.

37. A sterilized article as in claim 32, wherein the container comprises a syringe.

38. A sterilized article as in claim 32, wherein the container is manufactured from a composition comprising a polyolefin, a mobilizing amount of a liquid mobilizer compatible with said polyolefin, and a radiation stabilizing amount of a hindered piperidine stabilizer.

39. A sterilized article as in claim 38, wherein the container further comprises a clarifying amount of a dibenzylidene sorbitol alkyl thioether clarifier.

40. A sterilized article as in claim 38, wherein the container further comprises a nucleating agent comprising a 2,2'-methylene-bis(4,6-di-t-butylphenol)phosphate salt.

41. A sterilized article as in claim 40, wherein the 2,2'-methylene-bis(4,6-di-t-butylphenol)phosphate salt is selected from the group consisting of sodium 2,2'-methylene-bis(4,6-di-t-butylphenol)phosphate and aluminum 2,2'-methylene-bis(4,6-di-t-butylphenol)phosphate.

42. A sterilized article as in claim 38, wherein the composition of the container further comprises about 0.1 to 10% of an additional polymer.

43. A sterilized article as in claim 38, wherein the polyolefin is selected from the group consisting of polyethylene, polypropylene, polymethylpentene, polytetrafluoroethylene and copolymers thereof.

44. A sterilized article as in claim 38, wherein the mobilizing additive is selected from the group consisting of a hydrocarbon oil, phthalic ester oil, polymer grease, vegetable oil, mineral oil and silicone oil.

45. A sterilized article as in claim 38, wherein the stabilizer is a bis(4-piperidiny) diester of a dicarboxylic acid.